

## KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series

### Description

KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series is a type of prismatic reflective sheeting with eminent retroreflective property equivalent to or beyond encapsulated glass beads reflective sheeting. This product is suitable for fabrication of regulatory signs, warning signs, or arrow road signs of main roads.

Pressure sensitive adhesive coated on the back side makes easy application. Signs are finely fabricated with combination of screen printing and applying different color reflective sheeting or transparent color films.

### Photometric performance (Typical)

Typical coefficient of retroreflective values of KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series when measured in accordance with CIE Publication 54.2, using CIE standard illuminant A, are shown in Table 1.

Table 1 : Typical Coefficient of Retroreflective values ( $R_A$ ) ( $cd/lx/m^2$ )

Observation Angle	Entrance Angle	KIWALITE Prismatic HIP Grade #55000 Series				
		White #55013	Yellow #55043	Red #55063	Green #55073	Blue #55083
0.1°	+5°	1074	819	176	215	111
	+20°	954	563	126	207	62
	+30°	555	311	67	94	46
	+40°	340	180	52	49	24
0.2°	+5°	552	518	105	106	51
	+20°	633	388	79	129	35
	+30°	458	262	58	73	35
	+40°	312	166	48	44	21
0.33°	+5°	345	313	88	72	34
	+20°	397	240	78	87	41
	+30°	323	187	48	45	22
	+40°	258	141	42	36	17

\*The values at rotation angles of 90 degree or manufacturer's designated angle.

\*The values are not guaranteed values.

## Day-time color

The day-time chromaticity co-ordinates and luminance factor of KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series when measured in accordance with CIE Publication 15, using CIE standard daylight illuminant D65 and the standard CIE 45/0 viewing conditions, conform to Table 2.

Table 2 : Day-time color

Color	Chromaticity co-ordinate limits								Luminance (%)	
	1		2		3		4		Min	Max
	x	y	x	y	x	y	x	y		
#55013 White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329	27	—
#55043 Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.438	15	45
#55063 Red	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346	2.5	15
#55073 Green	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771	3	12
#55083 Blue	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216	1	10

## Prism Seal Pattern and Orientation Arrows

KIWALITE Prismatic HIP Grade #55000 Series has a very unique seal pattern same as KIWALITE #22000 High Intensity Grade. The "KWP" logo marks are patterned in the surface as visual aids to sheeting orientation (Fig.1). When fabricating a sign with a number of KIWALITE Prismatic HIP Grade #55000 Series sheetings, it is highly recommended to align arrow marks on each sheeting in same direction for obtaining a fine sign.



Fig.1 "KWP" logo mark example

## Instructions

### 1.Application

KIWALITE Prismatic HIP Grade #55000 Series has a pressure-sensitive adhesive on the back that should be applied at room temperature (18 to 28°C). Application procedure and devices are same as KIWALITE Engineering Grade #2000 Series or KIWALITE High Intensity Grade #22000 Series. Flat aluminium alloys are recommended for substrate of road signs. Always pretest your specific substrate prior to application.

## 2. Printing / Cut Letter

Fine signes with KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series, can be obtained by overlaying with KIWALITE reflective sheeting and KIWACAL transparent color films, or sceen printing with transparent process inks are available.

For screen printing, KIWALITE screen printing ink KSP series which is fast dry one component ink is available.

For transparent color film for cut letters, KIWACAL FF-GF Series film is available.

### **Durability**

KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series has at least 10-year durability when properly processed and applied in accordance with KIWALITE manuals and advices.

### **Storage and Shelf Life**

KIWALITE HIP Prismatic High Intensity Reflective Sheeting #55000 Series should be stored in a cool, dry area, preferably at 18 - 28 °C and 30 - 60% relative humidity in accordance with KIWALITE manuals and advices, and should be used within one year from date of delivery. For the details of storage, see KIWALITE instruction manual "No.KM-40004 Instruction for Storage and Handling".

**KIWA CHEMICAL INDUSTRY CO., LTD  
FILM DIVISION**

**33, Minamitanabe-cho, Wakayama-city, Japan**

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